Claims

1. A pharmaceutical composition comprising:

a) an azide derivative of a drug, which drug comprises an amino, carbonyl or hydroxy moiety, wherein in said azide derivative an azide group occurs at the site of said amino, carbonyl or hydroxy moiety in place of said moiety, said azide derivative being capable of being converted to said drug *in vivo* by replacement of said azide group with said amino, carbonyl or hydroxy moiety of said drug;

b) a suitable pharmaceutical carrier.

2. N^6-azido-β-D-3'-deoxyribofuranosyl purine, or a monophosphate, diphosphate or triphosphate or pharmaceutically acceptable salt thereof.

3. 6-azido-2',3'-dideoxy-2'-fluoro-ß-D-arabinofurasylpurine or a monophosphate, diphosphate or triphosphate or pharmaceutically acceptable salt thereof.

4. 9-(β-D-arabinofuranosyl)-6-azidopurine or a monophosphate, diphosphate or triphosphate or pharmaceutically acceptable salt thereof.

5. 2-amino-6-azido-1,9-dihydro-9[(2-hydroxyethoxy)methyl]-purineoramonophosphate, diphosphate or triphosphate or pharmaceutically acceptable salt thereof.

6. 2-amino-6-azido-1,9-dihydro-9-[dihydroxymethyl]propyl-purine or a monophosphate, diphosphate or triphosphate or pharmaceutically acceptable salt thereof.

7. The pharmaceutical composition of claim 1 comprising an azide derivative selected from the group consisting of azide derivatives of biologically active therapeutic purines and pyrimidines, nucleoside analogs and phosphorylated nucleoside analogs.

8. The pharmaceutical composition of claim 1 comprising an azide derivative selected from the group consisting of azide derivatives of aminoglycoside antibiotics.

9. The pharmaceutical composition of claim 1 comprising an azide derivative selected from the group consisting of azide derivatives of ampicillin and ampicillin analogs.

10. The pharmaceutical composition of claim 1 comprising an azide derivative selected from the group consisting of azide derivatives of sulfonamides.

11. The pharmaceutical composition of claim 1 comprising an azide derivative selected from the group consisting of azide derivatives of cephalosporin and cephalosporin analogs.

12. The pharmaceutical composition of claim 1 comprising an azide derivative of a biogenetic amine.

13. The pharmaceutical composition of claim 1 comprising an azide derivative selected from the group consisting of azide derivatives of alicyclic amines, ketones, or hydroxy-substituted compounds, including aralkyl, heterocyclic aralkyl, and cyclic aliphatic compounds, where the amine or oxygen moiety is on the ring, or where the amine or oxygen moiety is on an aliphatic side chain.

14. A method of increasing the half-life of a drug in a subject, which drug comprises an amino, carbonyl or hydroxy moiety, comprising the steps of:

(a) providing an azide derivative of said drug in which an azide group occurs at the site of and in place of a carbonyl, hydroxy, or amine moiety of said drug, said azide derivative being capable of being reduced to the drug in the subject's body by replacement of said azide group with said amino, carbonyl or hydroxy moiety;

(b) administering said azide derivative to a subject.

15. The method of claim 14 in which said drug is cordycepin.

16. The method of claim 14 in which said drug is 2'-F-ara-ddI.

17. The method of claim 14 in which said drug is AraA.

18. The method of claim 14 in which said drug is acyclovir.

19. The method of claim 14 in which said drug is penciclovir.

20. The method of claim 14 in which said drug is selected from the group consisting of biologically active therapeutic alicyclic amines, ketones, and hydroxy-substituted compounds, including aralkyl, heterocyclic aralkyl, and cyclic aliphatic compounds, where the amine or oxygen moiety is on the ring, or where the amine or oxygen moiety is on an aliphatic side chain.

21. The method of claim 14 in which said drug is selected from the group consisting of biologically active therapeutic purines and pyrimidines, nucleoside analogs and phosphorylated nucleoside analogs.

22. A method for ameliorating a pathological condition in a patient, which pathological condition is capable of being ameliorated by a selected drug which comprises an amino, carbonyl or hydroxy moiety, comprising treating the patient with a therapeutically effective azide compound which is capable of metabolizing *in vivo* to said selected drug by replacement of an azide group thereof with an amino, carbonyl or hydroxy moiety to form said drug effective for the treatment of said pathological condition.

23. The method of claim 22 also comprising co-administering said azide compound with other therapeutic agents.